

Community Support | Community Impact

Together Impacting the Lives of People in Lewis & Clark County

Thank you for your support of Montana State University Extension. MSU Extension is a partnership between Lewis & Clark County, Montana State University and the United States Department of Agriculture. This three-way partnership provides educational programs in the areas of Agriculture, Natural Resources, 4-H, Youth Development, Community Development, Family and Consumer Sciences, Food and Nutrition, and Supplemental Nutrition Assistance Program (SNAP) Education Programs. Included here are several highlights of our 2015 educational opportunities in Lewis & Clark County.

Lewis & Clark County Extension Welcomes 4-H and Youth Development Agent

Mary Meyer started as the 4-H and Youth Development Agent in January 2015. She grew up involved with Ravalli County 4-H, worked for Montana 4-H Foundation while attending Montana State University, and was the 4-H Youth Development Program Manager in San Mateo and San Francisco counties for the University of California Extension. Mary has many youth development and adult volunteer relationship skills to share with our county. Welcome Mary!



Extension Staff from left to right:

Janet Cerovski	Administrative Assistant
Catherine McNeil	4-H Military Program Coordinator
Brent Sarchet	Ag and Natural Resources Extension Agent
Kim Degner	SNAP Education Program Manager
Mary Meyer	4-H and Youth Development Extension Agent

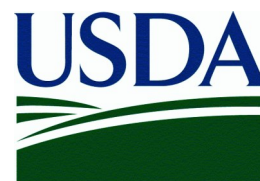
Welcome to Lewis and Clark County



Helena youth search for macroinvertebrates at the Montana Learning Center off of Canyon Ferry Lake during the PEAK BioBlitz, a two-day seminar where Extension educators taught entomology.

County Tri-funded Support

Thank you for the cooperative funding efforts that benefit Extension, and thereby benefit the whole county.



Supported by the Lewis & Clark County Commissioners
Michael Murray
Andy Hunthausen
Susan Good Geise

4-H and Youth Development

Lewis & Clark County 4-H By the Numbers

Lewis & Clark County Extension strives to make a positive difference in the lives of youth to help them reach their fullest potential. In 2015, Lewis and Clark County Extension educators reached over 700 youth, through 24 active 4-H Clubs, 134 4-H volunteers leaders provided educational programming for 403 youth 4-H members from age five to 18.



Helena 4-H Invitational Shoot during archery trials in January 2015 at the Lewis and Clark County Fairgrounds.

4-H Shooting Sports

Montana is a haven for outdoor enthusiasts. A great way to connect a family tradition with youth education is by way of shooting sports. Through the 4-H Shooting Sports Project, youth members learn safety and have the opportunity to practice mastering their talents within the project, at home and at invitational shoots. As 4-H member Chase said, "I'm able to practice every week at the 4-H archery project shoot, but I want to practice more. By building a safe range in my backyard I will be able to practice all the time." With 116 4-H youth in the Archery Project alone, Lewis and Clark County reaches Shooting Sports youth weekly from October to March and hosts the largest statewide invitational shoot.



This July, State Veterinarian Marty Zaluski, tests Meghan Lee's hen for Avian Flu while Kim Curtis and Hannah Diehl watch at the Last Chance Stampede Fair and Rodeo at the Lewis & Clark County Fairgrounds in Helena.

Animal Care in the Agriculture Industry

Animal projects are well-known in the 4-H program. Lewis and Clark County has projects ranging from dog to horse and poultry to cattle. This year the Avian Flu adversely affected the poultry industry and 4-H was not exempt. The Montana State Veterinarian recommended that waterfowl not be exhibited at the Fair due to their ability to come in contact with wild waterfowl and highest potential to spread the disease. This served as a great learning opportunity for 4-H youth owning an animal in the Aves Class (class name for birds). Lewis & Clark County is in the aviation flyway for birds and being located in Helena the State Veterinarians came to the fair to teach 4-Hers about biosecurity and conducted Avian Flu tests on all birds exhibited at the fair. This experience made a difference for all the poultry youth to see the connection to the larger agriculture industry and have exposure to biosecurity measures taken to protect not only themselves and their birds, but also the public.



The 4-H shows, exhibits, and auctions were very successful in 2015 thanks to the community support in Lewis and Clark County. Pictured left, 4-H Beef Project Leader Shane Tamcke, gives 4-H member Cash Corbally a little encouragement during the Livestock Auction in July.

4-H Military Partnerships and Grant Programming



Babysitting Project members work together on a puzzle in the Babysitting Curriculum through Operation Military Kids (OMK)

4-H Military Partnership Grant

The 4-H Military Partnership grant is exactly that – working with partners to bring 4-H to military youth. Through collaborations with Helena Middle School and the Helena YMCA, 10 youth not only completed the 4-H babysitting project, but also received certification in Red Cross First Aid and Child/Youth CPR. Partnerships with the Manhattan Library and the Air National Guard allowed us to train another 40 youth with the babysitting curriculum.

Throughout the year we provided 4-H programming to various military partners and camps. The 4-H 101 curriculum allowed us to let numerous families know about what 4-H has to offer their kids.

Youth at Malmstrom Air Force Base learned scientific skills while trying to determine “who dun-it?” They learned how to use microscopes, test fabric fibers, use problem solving techniques and have fun in the



Crime and Spy Science - looking at samples at the Malmstrom Air Force Base

meantime. Because of the interest in Crime and Spy Science, Malmstrom formed their own CSI 4-H club.

The highlight of the year was the Air National Guard/Air Force Reserve Camp Grant that allowed us to partner with the Air National Guard and KOA Campground to provide a junior survival camp. The 27 kids attending this camp learned basic survival and resiliency skills. Ten teenage youth were able to ride into the Bob Marshall Wilderness Area with Sun Canyon Ranch outfitters leading the way. The kids also learned basic survival and resiliency skills, as well as how to wrap their packs to put them on the mule trains to travel out of the Bob Marshall Wilderness area. The youth were exposed to different 4-H projects through these camps.



Lewis and Clark County 4-Hers Kaitlyn Edwards, Joseph Edwards, and Michael Carlson work with an MSU Scientist during BioScience Montana week in August at Montana State University.

BioScience Montana

Increasing science education and career opportunity awareness is a priority in Montana 4-H. Through the Science Education Partnership Award (SEPA), Lewis and Clark County had three 4-H teams participating in BioScience Montana in 2015. One team wrapped up this spring as two teams started in the immersive health science project led by faculty and staff from Montana State University. 4-Her and BioScience Montana participant Emma Carlson helped recruit the two teams participating in 2015-2016. Emma told the interested youth, “Being a part of the BioScience Montana Project helped me get into college and definitely landed me a job at Carroll College in the labs. When they saw that I had done research and lab work with MSU professors, I got the job!”

Master Gardener Program - Impacting the Lives of Gardeners, their Families and their Communities in Lewis & Clark County

The Master Gardener Program has completed its sixth year in Lewis & Clark County. Since the spring of 2010, 299 people have taken the Level I course, 81 people have taken the Level II course, and 18 people have taken the Level III course in Bozeman. The Level I course is taught every spring and the Level II course is taught every fall in Helena. The Level III course is taught in Bozeman in the summer.



An evaluation of the spring Level I course indicated participants were satisfied with the course. The instructor, Brent Sarchet, received a rating of 4.72 out of five. The overall course received a rating of 4.8 out of five; 78 percent indicated that the course exceeded their expectations. The majority (67%) of the spring Level I class, when asked how familiar they were with Extension, indicated they were familiar with Extension prior to taking the Master Gardener course, but they had not utilized the offices' services or taken any courses. Through the Master Gardener program, we are reaching clientele that may not otherwise utilize Extension's services. One respondent said, "I learned so many things that I was doing incorrectly. I am excited to see how my yard/garden/flowers/shrubs turn out this year with all of my new information." In addition to the knowledge the course participants obtained, 33 percent indicated a financial benefit, social/networking benefit (44%), and a health/well being benefit (33%). A respondent said, "Probably the most interesting class I have had in the last 48 years!" When asked if they would recommend the course to others, 100 percent of the respondents said yes.

Volunteer Project Highlights

Master Gardeners are putting their gardening knowledge and skills to work in their communities through many projects. Since the spring of 2010, Master Gardeners have logged over 3,803 volunteer hours; if valued at \$19.89 per hour, that is \$75,642 worth of volunteer time that has been put to work in their communities. Following are just some of the amazing projects that Master Gardeners have been involved in.

Downtown Helena Landscaping Project

The Helena Business Improvement District (BID) contacted the Extension Office in the fall of 2014 to see if Master Gardeners would be interested in helping the BID renovate their landscaping in downtown Helena on Last Chance Gulch. The Extension Agent assembled a group of Master Gardeners volunteers that met during the winter to develop a plan for the landscaping. After the plan was developed, the Extension Agent worked with a local nursery for supplying the plant material. In March, Master Gardeners began cleaning up the areas and removing the existing vegetation. Throughout the spring volunteers worked on the planting and installation of an irrigation system. The project was finished in June with the installation of mulch around all the plants.

Number of volunteers involved - 20

Volunteer hours on this project - over 480

Value of volunteer hours on this project - \$9,547

Value of the work performed - over \$10,000



Landscaped bulbout before - fall 2014



Landscaped bulbout after - fall 2015

Booth at the Farmers' Market

The Extension Office and the Master Gardeners maintain an informational booth at the Helena Farmers' Market. This is the fifth year of having a booth at the farmers' market. For the last three years Level III Master Gardener Jim Clark has taken over the organization and coordination of the booth. The booth is a great way to get information to the public. People at the booth field numerous horticulture, gardening and food preservation questions.

Number of volunteers involved in 2015 - 7

Volunteer hours in 2015 - over 320

Value of volunteer hours in 2015 - \$6,365

Contacts made in 2015 - over 360

Pruning Trees at Archie Bray

In June a group of Master Gardener volunteers and the Extension Agent helped the Archie Bray Foundation with pruning and removal of some hazardous trees around their historical buildings.

Number of volunteers - 8

Volunteer hours - 40

Value of volunteer hours - \$796

Value of the work performed - over \$2,000



Some of the pruning crew, pictured left to right: Master Gardeners—Michael Hall, Keith McCallum, Stephanie Kellogg, Arnold Sowa, not pictured Brent Sarchet (Lewis & Clark County Extension Agent, taking picture), Master Gardeners - Lauren Gustafson, Deborah Dethier, Joyce Naeher

Forage Nitrate Testing

In 2015, the Extension Office conducted 15 nitrate tests on annual forages that represented over 300 acres. The potentially impacted livestock are over 2,000 head of cattle and sheep. The test is a qualitative test, but it is a useful tool for producers to help prevent nitrate poisoning to their livestock. It is also an excellent opportunity to educate the producers on management options with regards to annual forages.

Fruit Tree Research Programs - working to address food security

In 2011, a survey was sent to all Extension Agents. The goal of the survey was to evaluate if local fruit was available and how much of a demand or market would there be for local fruit. The survey indicated that most of the state, with the exception of west of the divide, had very little if any local fruit in the local food systems. This information combined with the fact that Montana has 33 counties that have food deserts, indicated there is a need to encourage more fruit production in the state, but within Extension we had very few resources and no research was being conducted on fruit. Two programs were started to address this need. In 2012, MSU/Lewis & Clark County Extension received a Specialty Crop Block Grant to conduct fruit tree cultivar research across the state. The project is a collaboration among Extension specialists and agents: Brent Sarchet, Lewis & Clark County Extension Agent and principle investigator on the project; Toby Day, Horticulture



Fruit Tree Research site near Whitehall - Summer 2015



2015 Research Field Day - Helena Location
Four research field days, and two grafting workshops were held in 2015

Specialist; Pat McGlynn, Flathead County Extension Agent; Shelly Mills, Valley County Extension Agent and Elizabeth Werk, Fort Belknap Reservation Extension Agent. The research project involves testing six apple cultivars, five pear cultivars and three plum cultivars at eight different locations across the state. The orchards were planted in the spring of 2013 and 2014. The locations include: Columbia Falls, Power, Helena, Colstrip, Hinsdale, Bozeman, East Helena and Whitehall. We also received a Montana Growth Through Agriculture Grant to add two additional locations, Shelby and Lodge Pole, which were planted in the spring of 2015. The objectives of this project are to evaluate the performance of different cultivars at different locations across the state, so that future recommendations can be made based upon the findings at each location. A preliminary publication with the findings of the research will be released in January 2016.

In the fall of 2013, the Montana Heritage Orchard Program was started by Brent Sarchet, Lewis & Clark County Extension Agent and Toby Day, MSU Extension Horticulture Specialist. Other partners include: Norm Weedum, MSU Geneticist, Jay Van Voast, MSU Extension Information Systems Analyst/Web Developer and Roger Joy, owner of Canyon View Nursery. The program was awarded a Specialty Crop Block Grant through the Montana Department of Agriculture in the spring of 2015. The programs' objective are to identify, preserve, propagate and learn from these 100 plus year-old



orchards. The information gathered from these heritage orchards will complement the information we are gathering through the fruit tree cultivar research. The combined information through the two research programs will be useful in assisting new orchard owners. The program has a web site, mtorchards.org, where there is a map of all the heritage orchard locations across the state. The web site also contains resources on growing tree fruit in Montana. Eventually, after we complete all the DNA testing of the trees at each location, we will have a list of the cultivars that are at each location.



Pruning crew at Crow Creek Orchard, near Radersburg. Pictured from left to right: Brent Sarchet (Lewis & Clark County Extension Agent), Master Gardeners - Steve Krause, Jean Krause, Dawn Reynolds, Owners - Chad, Claudia Lunt, Master Gardeners - David Mabry and David Belitsky, not pictured Toby Day (MSU Horticulture Specialist, taking picture); every heritage orchard site gets pruning assistance in the spring.

The Heritage Orchard Program and the fruit tree cultivar research will complement each other in accomplishing the overall goal of increasing fruit production in Montana. Fruit production may be a farming enterprise that will assist in overall farm diversification which has the potential to be very profitable if growers have the most accurate research-based information. Resources are currently being developed to ensure the public has the best information on fruit production specific to Montana.



Wealthy apple from Heritage Orchard site

SNAP-Education & Family Consumer Sciences

The Supplemental Nutrition Assistance Program Education (SNAP-Ed) just wrapped up its first year in Lewis and Clark County. This program provides nutrition and cooking classes for both youth and adults. The adult classes include a series of eight lessons that focus on meal planning, saving money at the grocery store, increasing physical activity, and making healthy food choices for their families. In its first year, 36 adults graduated, which means they attended at least 7 out of the 8 classes. In order to make this possible, SNAP-Ed partnered with a number of community agencies including Helena Housing Authority, Helena Industries, The Boyd Andrew House, Family Promise, Florence Crittenton, The Friendship Center, YWCA, Helena Food Share, Head Start, Lewis and Clark Public Health, Van's Thriftway, Carroll College students, and the Rocky Mountain Development Center. One of the biggest impacts of the lessons is participants understanding how to read the Nutrition



Kim talks about eating a "rainbow" of fruits and vegetables every day to get the most nutrition.

Photo Credit: Gayle Shirley, Lewis and Clark Public Health

Facts and Ingredients labels on foods they buy. One participant shared that even though they might not change all of their eating habits they were going to start reading the labels more and realizing what is in some of the products their family is eating. This lesson is important for long-term change.

This year, Lewis and Clark County was also one of four counties in the state that piloted "The Great Garden Detec-

tive," a youth gardening program to help students discover where their food comes from. This program was piloted with both the YMCA's After School Program at Bryant Elementary and with Kay's Kids, a free childcare program through the City of Helena Parks and Recreation. Over the summer we had 35 students participate in the 11 lessons. Students planted their own container garden, recorded growth of the plants every week, made simple recipes with fruits and vegetables from their garden, and discovered what both plants and their bodies need to grow healthy and strong. Each student who participated in the program also received a packet of seeds to take home.



Class participants measure headspace on canning jars before processing the jars in a water bath.

Master Food Preserver

In May, Lewis and Clark County Extension staff member Kim Degner attended an intensive Master Food Preserver training in Thompson Falls. This comprehensive program provides an overview of different methods of home food preservation, hands-on lessons, and a written test. Home food preservation includes water-bath canning, pressure canning, freezing and drying. The Extension Office will now offer a Master Food Preserver Training starting in November. Program participants will complete an intensive weekend-long training, written test, and then will provide 20 hours of community service to the Extension Office. Master Food Preserver Volunteers will be needed to help expand opportunities for canning classes, tabling at Farmers' Markets, and helping to freeze fruits and vegetables for Helena Food Share.

Family and Consumer Sciences

Recently Kim Degner, our SNAP-Ed/FCS Program Manager, was promoted to full-time. This will increase the capacity of Family and Consumer Science Programming available through Lewis and Clark County Extension. A few programs that have been planned for next year include, Strong Women Healthy Hearts, Solid Finances Webinars, Master Food Preserver, ServSafe trainings, and further outreach for safe home food preservation.

This fall we partnered with local non-profit Helena Community Gardens to provide Water Bath and Pressure Canning workshops that were free and open to the public. Class participants made Carrot Pepper Salsa and Carrot Cake Jam with produce grown in the Extension Office's Peoples' Garden.

These hands-on classes provide an opportunity for community members to walk through the process of canning on their own. A number of questions came up while folks were going through the steps involved in canning. The class especially focuses on making processing adjustments for altitude and acidity of fruits and vegetables. One participant shared with the group, "I've been canning for 20 years in Montana, and I had no idea I had to adjust (processing time) for altitude". Lewis and Clark Extension also shared food preservation information at the Helena Farmers' Market and did a food preservation presentation for the Master Gardeners Association.



Removing jars of Apple Tomato Chutney, a high acid food, from a water bath canner.

Contact Us



EXTENSION

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Montana State University Extension is an ADA/EO/AA Veteran's Preference Employer and provider of educational outreach.

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